## **Penstemon arenarius** E. Greene

## **NEVADA DUNE BEARDTONGUE**

**FAMILY:** *Scrophulariaceae*, the figwort family.

**SYNONYMS:** Penstemon maguirei

**STATUS:** 

Heritage Program SENSITIVE LIST, ranks: G2G3 S2S3

**USFWS/ESA:** species of concern. **STATE OF NEVADA:** none. **BLM:** Special Status Species. **USFS:** Humboldt-Toiyabe NF Sensitive Species. **NNNPS:** watch list.

**POPULATION CENSUS: 13 occurrences mapped** at 1.0 km (0.6 mi) separation, OR **32 occurrences mapped** at 0.16 km (0.1 mi) separation; total estimated **individuals 1398**+, total estimated **area 224**+ **ha (554**+ **ac)**. **TREND:** unknown.

IMPACTS AND MAJOR THREATS: No summary available (see references).

**INVENTORY EFFORT:** Most recent entered survey 1988, average year of last survey 1982.

Years since last entered survey (percent of mapped records at various survey ages): 11-20 yrs: 90.6%; 21-30 yrs: 6.3%; 31-50 yrs: 3.1%.

**LAND MANAGEMENT** in decreasing predominance: U. S. Bureau of Land Management, private lands, U. S. Department of Defense (?).

**RANGE:** Churchill, Mineral, and Nye counties, Nevada. **Nevada endemic.** Maximum **range dimension 285.3 km (177.3 mi)** excluding most disjunct record. **Type specimen** collected in Mineral County.

**ELEVATIONS RECORDED:** 3920-5960 feet (1195-1817 meters).

HABITAT: Deep loose sandy soils of valley bottoms, aeolian deposits, and dune skirts, often in alkaline areas, sometimes on road banks and other recovering disturbances crossing such soils, in the shadscale zone with Psorothamnus polydenius, Achnatherum hymenoides, Astragalus geyeri var. geyeri, Atriplex canescens, A. confertifolia, Tetradymia glabrata, Gilia leptomeria, Tiquilia nuttallii, Sarcobatus baileyi, Chrysothamnus, Ephedra nevadensis, etc. Dependent on sand dunes or deep sand.

PHENOLOGY: flowering late-spring. Range of most frequent survey months: May-June.

**LIFE-FORM AND HABIT:** perennial herb from a buried root crown.

**DESCRIPTION:** A perennial herb, 1-3 dm tall, with leathery, coarsely toothed leaves and whitish to purple, funnel-shaped flowers striped with magenta. Blooms from May to July.

**PHOTOGRAPHS:** Weixelman and Atwood (1990); Nevada Natural Heritage Program images web page (1998-present) and files.

ILLUSTRATIONS: Cronquist et al. (1984), Mozingo and Williams (1980), Weixelman and Atwood (1990).

OTHER GENERAL REFERENCES (listed separately): Beatley (1976), Beatley (1977).

## **SPECIFIC REFERENCES:**

Goodrich, S. 1979. Status report on Penstemon arenarius. Portland, Oregon: U. S. Fish and Wildlife Service. Tiehm, A. 1983. Field search for proposed threatened and endangered plants on Phillips Petroleum lease unit in the Desert Peak area of Churchill County, Nevada. Carson City: Nevada Natural Heritage Program files.